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CASES OF ANTISEPTIC OVARIOTOMY.

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[Reprinted from The Boston Medical and Surgical Journal, January 23, 1879.]

CAMBRIDGE:
Printed at the Riverside Press.
1879.

CASES OF ANTISEPTIC OVARIOTOMY.[1]

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THE following cases of ovariotomy, though few in number, are interesting as showing the value of the antiseptic method of operating in these cases. Mr. Wells, Dr. Keith, Köeberle, and others had brought the operation nearly to perfection by striving to obtain perfect cleanliness and perfect drainage. Dr. Keith's last-published series of sixty cases, done under carbolic spray, with only two deaths (and those inevitable), and with forty-one successive recoveries, are as near perfection as will ever be obtained. I suppose that what an operator will learn as he goes on is when to discontinue an operation, and either close the wound or unite the cyst walls with the abdominal incision, and endeavor to obliterate the sac by drainage. The intra-peritoneal method of treating the pedicle is the best in most cases, and there is probably but little to choose between the ligature and the cautery. The latter I have never tried. The clamp I abandoned after having a death from septicæmia, caused apparently by sloughing of the pedicle beyond the clamp. One very important element of the process of Lister, namely, drainage, seems unnecessary in an average case of ovariotomy, but the peritonæum must be carefully sponged out clean before closing the incision.

CASE VIII.[2] — *Multilocular Cyst of Left Ovary; Antiseptic Ovariotomy; Recovery.* — Mary R., aged fifty-eight, was admitted to the Carney Hospital August 29, 1878. The tumor had been discovered about two years before, and had increased rapidly within the last three months. The girth at the umbilical level was forty-one inches. Her general health was good.

Ovariotomy was performed, beneath carbolic spray, on August 31st. The incision was about four inches long; there were adhesions to the uterus by strong and thick vascular bands. The pedicle was tied in two halves with carbolized catgut. On examining the stump of the pedicle just before closing the incision, hæmorrhage was found to be going on from several points; these were tied in turn, and finally an-

[1] Read before the Boston Society for Medical Improvement.

[2] The numbers refer to the whole series of cases operated upon by the author.

other catgut ligature, surrounding the whole pedicle, was tied in the sulcus made by the first ligatures. The fluid removed weighed fifteen and a half pounds, and the cysts four and a half. The cyst walls and septa were very tough and strong, and in places cretaceous. Five deep and four superficial sutures closed the wound, which was dressed antiseptically. Flatus passed per anum on the second day. A sixth of a grain of morphia was given on the third day, and this was the only opiate required during recovery. Occasional injections of brandy were taken, and stimulants were needed for ten days. The wound was found entirely united on the sixth day. The bowels moved on the seventh day. Considerable abdominal distention and tenderness, with a rise of temperature to 102.5°, occurred on the twelfth day, due apparently to accumulation of urine and fæces. She went home well September 27th.

Case IX. *Unilocular Cyst, probably of the Broad Ligament; Antiseptic Operation; Recovery.* — Mary M., aged sixty, was admitted to the Carney Hospital September 13, 1878. The diagnosis was that there was a cyst, probably ovarian, without adhesions. The tumor had been discovered thirteen years before, but had caused no trouble until recently from its size and weight. The girth at the umbilical level was forty-three and a half inches. Her general health was excellent. The patient was etherized on September 17th, and an incision beneath carbolic spray, about five inches long in the skin and three and a half in the peritonæum, was made. At this point the patient coughed violently, and the tumor was protruded forcibly from the wound; it was seen to be covered with a delicate layer of peritonæum, beneath which it seemed to slide somewhat. This layer was divided, and the tumor tapped, emptied (it was unilocular), and teased out of its envelope, as one would tease out a wen or fatty tumor; the delicate cellular tissue connecting the cyst with its peritoneal covering being ruptured as the separation was effected, until suddenly the cyst rolled out clean and free without any pedicle. The enveloping membrane was returned, the abdominal cavity was sponged out in order that no fluid might be left behind, and the wound was then sewed up and dressed antiseptically. There had been no hæmorrhage. The whole operation from the time of making the first incision in the skin till the sutures were all inserted had consumed only seven minutes. The safety of the patient was considered of more importance than the locality of the cyst, and this was not ascertained, although the temptation to do so was strong and the risk slight, but the character of the cyst and its contents was such that there is very little doubt of its having been a cyst of the broad ligament. Four deep and five superficial sutures closed the wound. The fluid removed was clear and pale, and weighed twenty-four pounds; the cyst was thin walled, and had a circumference

of thirty-six inches; it weighed an ounce or two. Most of the fluid was thrown away by the person who weighed it, and the quantity remaining in the tub was too small to determine the specific gravity. Dr. Arthur T. Cabot, however, who kindly examined this fluid, reported that it was neutral to test paper, and contained mucin and albumen in small quantities; also a few fine granular cells smaller than pus cells, and large pavement epithelium. The recovery was immediate; the temperature rose to 100° on the second evening, and was normal afterward. The patient returned home perfectly well on the seventeenth day.

Case X. *Multilocular Cyst of the Left Ovary; Peritonitis and Suppuration of Cysts at time of Operation; Recovery.* — Mary O'C., aged twenty-four, entered the Carney Hospital September 23, 1878. The umbilical girth was thirty-six inches. The tumor had been first noticed in November, 1877. A day or two after her entrance she began to be constipated, and to suffer from frequent vomiting of greenish fluid; she also complained of abdominal soreness, and completely lost her appetite. It was thought that she might be suffering from peritonitis, and this proved to be the case. Ovariotomy under carbolic spray was performed on September 29th. On opening the peritonæum considerable clear ascitic fluid ran out; this soon became bloody, and also contained masses of straw-colored lymph. The exterior cysts that presented themselves were of small size; a larger one, the wall of which was softened from acute inflammation, was punctured; the fluid was thick, and did not run easily; however, by holding the cysts out of the abdomen it was possible to empty them. The omentum, to which the tumor strongly adhered, was cut away with scissors, and spread out on a carbolized towel, and at the close of the operation was tied in portions and dropped back. During the operation the tumor was cut in halves, in order to be more conveniently handled. There were slight adhesions to the anterior parietes, and some hæmorrhage took place from the inflamed peritonæum. The uterus was quite red-looking, and covered more or less with recent vascular-looking lymph. The pedicle was tied with catgut and dropped back. The solid matter and unruptured cysts weighed about eleven pounds, and the fluid three pounds. The patient did not vomit after the operation, nor did she ever require an opiate; stimulants were occasionally given. She passed her urine naturally from the first, and wind by the rectum on the second day. Her recovery was speedy and uninterrupted, and she went home on the sixteenth day.

Dr. Cabot's report of the tumor is annexed: —

"Multilocular proliferous cyst. The mass was very solid, there being an immense number of extremely small cysts. The tumor with the fluid, and what ascitic fluid escaped during operation, weighed fourteen

pounds. This mixed fluid had a specific gravity of 1023. The chemical and microscopical examination was made with fluid obtained directly from the cysts. The larger cysts, of which there were two principal ones, contained a dark reddish-brown, ropy fluid, containing numerous yellowish flakes. Microscopically these yellow flakes consisted mainly of pus cells, most of which were undergoing fatty degeneration. The fluid further contained large granular cells and much granular matter. The dark color seemed to be due to a large number of shriveled blood discs of darker color than normal. The smaller cysts contained a light straw-colored fluid resembling the dark fluid, excepting that the shriveled blood cells were not present. The fluid from these cysts was of *alkaline* reaction, and coagulated solid on addition of nitric acid. I could detect no mucin. The cysts were in places covered with large yellow patches on a highly injected ground. The microscope showed the walls at these places to be thickly infiltrated with pus cells, at times recent, but generally more or less degenerated."

Case XI. *Multilocular Cyst involving both Ovaries and Broad Ligaments; Death.* — Miss R., aged forty-eight, had been suffering from ovarian disease for about two years; her umbilical girth was forty-four inches. At the age of thirteen she had suffered from abdominal or pelvic cellulitis, which had confined her to the bed for many weeks, and had terminated in a large discharge of pus by the rectum, an abscess having emptied itself at some point into the bowel. The diagnosis was an ovarian tumor, containing one large main cyst and probably others of smaller size, and the opinion given that ovariotomy would be successful if there were not extensive adhesions discovered in the course of the operation. The operation was performed under carbolic spray, in a sunny room of a private house, on November 8, 1878. Anteriorly the tumor was free on the left side, but laterally and posteriorly it was universally adherent.

There were strong and fibrous adhesions to the sigmoid flexure, requiring careful dissection with the scalpel; there were also adhesions to other portions of the intestines, to the mesentery, to the pelvis, and to the parietal peritonæum laterally. The operation lasted an hour and a half; the tumor was finally removed and the pedicle tied. Neither ovary nor broad ligament were seen, and the pedicle sprang from the fundus of the uterus, which was elongated upwards. The tumor must have involved both ovaries and both broad ligaments, and must have got its blood supply from its connection with the abdominal viscera, as the uterine pedicle was not at all vascular. The wound, which was about four inches long, was dressed antiseptically, and the patient placed in bed, and surrounded by artificial heat. Death ensued quietly from shock fourteen hours after the operation was finished.

Case XII. *A Burst Papillomatous Cyst of Right Ovary, with Peri-*

tonitis and Ascites; Antiseptic Ovariotomy; Recovery. — Mrs. H., aged forty-seven, was seen by me at Northfield, Vermont, in consultation with Dr. Edwin Porter, on December 27, 1878. She was suffering with peritonitis, had hectic fever, and could retain no food on her stomach. Her abdomen was covered with hot flannel embrocations, and the skin was more or less blistered. I learned that she had first noticed her tumor in the previous September, and had increased rapidly in size. Tapping had been required twice in the last six weeks, on account of dyspnœa and distress. The canula was left in the cyst for several hours after the first tapping.

The operation was done antiseptically in the kitchen of a farm-house, on a clear, cold, bright day. The incision extended from the umbilicus to the pubes. There were slight adhesions where the first puncture had been made; the cyst wall was friable, and purulent inflammation had begun on its interior surface. There was a considerable mixture of ascitic and cystic fluid in the peritoneal cavity; this was allowed to run out freely, and the abdominal cavity was then sponged out clean and dry; many patches of lymph and fragments of papillomatous tissue were thus removed. The cyst was removed piecemeal, and was found to be a papilloma. A portion of the cyst wall, about three inches long, which adhered intimately to the bowel, was cut out with scissors, and left behind. The parietal peritonæum was studded with tubercular-looking masses. It will be interesting to see if these give rise to trouble in the future. The pedicle, which was extremely short, was tied *en masse* with carbolized catgut, and left in the pelvic cavity. The operation lasted an hour and a quarter, and the patient was quite feeble when removed to her bed. Beyond an occasional enema of fifteen drops of laudanum, no opiate has been required. The wound was first examined on the eighth day; it had thoroughly united, and all the sutures were removed.

On the fourth day after the stitches were removed, the temperature rose to 99.8° F., and an abscess opened in the cicatrix, either in the track of one of the stitches or in the place where the canula had been left after the tapping, which was done several weeks before the operation. Coincidently with the opening of the abscess the temperature fell and has been normal since, the pus is healthy and in amount is about an ounce in twenty-four hours. I am informed that the patient's appetite is excellent, and that she is daily gaining inflesh and strength. Dr. Porter says, in a letter dated January 16, 1879, "Mrs. H. says sometimes she feels well enough to go to work."

I append a table of cases of antiseptic ovariotomy. Five of the cases were in a hospital room opening from a large general ward; the floor of the room was always oiled with carbolic oil; and the sides wiped over with a solution of carbolic acid before each operation. No particular

TABLE OF CASES OF ANTISEPTIC OVARIOTOMY.

No.	Date.	Place of Operation.	Condition.	Age.	Duration of Spray.	Length of Incision.	Adhesions.	Treatment of Pedicle.	Weight Tumor.	Result.
1	Feb. 27, 1877.	Carney Hospital.	S.	16	1 hour.	4½ inches.	Slight and vascular, to omentum.	Tied in halves with carbolized catgut.	21 lbs.	Recovery rapid. Well, strong, and working hard in 1878. Catamenia regular since Aug., 1877.
2	March 30, 1878.	Do.	S.	20	Do.	5 inches.	Almost universal to anterior and lateral abdominal parietes.	Do.	29 lbs.	Recovery. Went home at the end of four weeks. Catamenia regular since May, 1878. In November, well and strong. Has gained twenty pounds in weight.
3	Aug. 31, 1878.	Do.	W.	58	45 minutes.	4 inches.	To uterus by strong and thick vascular bands.	Do.	20 lbs.	Recovery. Went home at the end of four weeks.
4	Sept. 17, 1878.	Do.	W.	60	10 minutes.	4 inches.	Delicate cellular adhesions to envelope, like those of an easily separable fatty tumor.	No pedicle.	24 lbs.	Recovery immediate. Went home on sixteenth day.
5	Sept. 29, 1878.	Do.	M.	24	45 minutes.	4½ inches.	Slight peritoneal. Extensive omental.	Tied as in other cases.	14 lbs.	Recovery rapid. Went home on twenty-first day. Peritonitis and purulent inflammation of the cyst walls at time of operation.
6	Nov. 8, 1878.	Boston.	S.	48	1½ hours.	4 inches.	Strong and intimate to peritonæum, pelvis, to mensentery, and intestine.	Do.	42½ lbs.	Death from shock in fourteen hours.
7	Dec. 28, 1878.	Northfield, Vt.	M.	47	1¼ hours.	5 inches.	To intestine and omentum.	Tied with catgut, without transfixion. Several circular ligatures applied.	Not determined.	Recovery. A burst papillomatous cyst; peritonitis, with patches of lymph on the peritonæum, and considerable ascites were present. Patient had been vomiting, and had hectic fever for two weeks. A piece of cyst wall, adherent to intestine, was cut out with scissors, and left otherwise undisturbed.
	Dec. 18, 1878.	Stoneham, Mass.	W.	62	30 minutes.	5 inches.	Exploratory inc	ision. Tumor	not re- [moved.	Recovery. Tumor solid and lobulated, attached to sacrum, ileum, and uterus. Fluid (40 lbs.) ascitic. No opiate required.

guaranties were required from spectators, as it was thought that the spray would neutralize any septic influences. It should be stated, however, that the hospital is situated on Dorchester Heights, overlooking the whole city, the harbor, and the bay, and that the air in these high rooms is always fresh and brisk. The same nurse took care of all the hospital cases, and to her good judgment much of the credit is due. I am not aware that ovariotomy was done beneath carbolic spray in this neighborhood before the date of my first case. One of the reported cases was probably a cyst of the broad ligament, but I have included it with the others, as an ovariotomy, since the diagnosis is not absolutely certain, and the operations are very similar.

I have added to the table a case of antiseptic exploratory incision.